

PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT	JUN 28 1995 TRADEMARK OFFICE	ATTORNEY DOCKET NO. 0311.48526	SERIAL NUMBER 08/358,474
	APPLICANT Kyle, David J.		
	FILING DATE December 19, 1994	GROUP ART UNIT 1205	

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
120	5,397,591	03/95	Kyle, et al.	426	602	2/90
120	5,204,250	04/93	Shinmen, et al.	435	134	3/87
120	4,874,629	10/89	Chang, et al	426	601	
120	4,963,385	10/90	Antrim, et al	426	602	
120	5,407,957	04/95	Kyle, et al. 514/547	435	134	2/90
120	5,130,242	07/92	Barclay	435	134	9/90
120	4,938,984	1990	Traitler, et al	426	580	
120	4,526,793	07/85	Ingenbleek, et al	426	72	
120	4,851,343	07/89	Herbert, et al	435	134	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
120	WO 92/13086	08/06/92	International Application			Yes
120	01/215,245	08/29/89	Japan			Yes
120	01/196,255	08/08/89	Japan			Yes
120	0 223 960	06/03/87	Europe			Yes
120	0 276 982	08/03/88	Europe			Yes
120	01/038 007	02/08/89	Japan			Yes
120	01/304 892	12/08/89	Japan			Yes
120	WO 89/00606	01/26/89	International Application			Yes
120	WO 90/04391	05/90	11 11			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

120	Shinmen, et al. (1989), "Production of Arachidonic Acid by <i>Mortierella fungi</i> ," <i>Appl. Microb. Biotech.</i> , 31:11-16
120	Yamada, et al. (1987), "Production of Arachidonic Acid and Eicosapentaenoic Acid by Microorganisms," pp. 173-177, <i>Proc. World Congr. Biotechnol. for Oils and Fats Industr.</i> , Applewhite, ed., Am. Oil Chem. Soc., p. 173
120	Totani, et al. (1987), "The Filamentous Fungus <i>Mortierella alpina</i> , High in Arachidonic Acid," <i>Lipids</i> , 22:1060

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<u>KJ</u>	4,670,285	06/87	Clandinin, et al	426	602	
	5,013,569	05/91	Rubin	426	585	5/90
	4,920,098	1990	Cotter, et al	514	2	
	4,868,001	09/89	Maruta	424	623	
	4,960,795	10/90	Salte, et al	514	560	
	4,911,944	03/90	Holub	424	635	
	4,526,902	07/88	Rubin	514	560	
↓	4,681,896	07/87	Horrobin	514	552	
<u>KJ</u>	4,792,418	12/88	Rubin	260	412	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
<u>KJ</u>	0 269 351 -	06/88	Europe	—	—	Yes
<u>KJ</u>	01/132,371	05/89	Japan	—	—	Yes
—	02/257,835	90/10	Japan	—	—	Yes
<u>KJ</u>	0 140 805 -	05/85	Europe	—	—	No
↓	0 148 303 -	07/85	Europe	—	—	No
↓	0 231 904 -	08/87	Europe	—	—	No
<u>KJ</u>	0 296 751	12/88	Europe	—	—	Yes

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<u>KJ</u>	Shimizu, et al. (1988), "Production of Eicosapentaenoic Acid by <i>Mortierella Fungi</i> ," <i>J. Am. Oil Chem. Soc.</i> , 65:1455
↓	Totani, et al. (1988), in "Production of Arachidonic Acid by <i>Mortierella alpina</i> ," <u>ISF-JOCS World Conference</u>
↓	Shimizu, et al. (1988), "Production of C-20 Polyunsaturated Fatty Acids by Fungi," <u>ISF-JOCS World Conference</u>
<u>KJ</u>	Yamada, et al. (1989), "Biotechnological Processes for Production of Poly-Unsaturated Fatty Acids," <i>J. Disp. Sci. & Tech.</i> , 10:561-579

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KD	4,810,497	3/89	Horrobin	424	153	
	4,826,877	05/89	Stewart, et al.	514	560	
	5,116,871	05/92	Horrobin	514	560	8/89
	5,120,760	06/92	Horrobin	514	458	6/89
KD	5,198,468	03/93	Horrobin	514	558	6/88

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KD	Shimizu, et al. (1989), "Conversion of Linseed Oil to an Eicosapentaenoic Acid-Containing Oil by <i>Mortierella alpina</i> 1S-4 at Low Temperature," <i>Appl. Microb. Biotechnol.</i> , 31:1-4)
	Ratlledge, 1986, "The Potential of Microorganisms for Oil Production-A Review of Recent Publications," Baldwin, et al., eds., <i>Proc. World Conf. Emerging Technol. Fats Oils Industr.</i> , Am. Oil Chem Soc., pp. 318-330
	Aaronson, et al., 1980, "Microalgae as a Source of Chemicals and Natural Products," in <i>Algal Biomass</i> , Shelef, et al., eds., Elsevier, pp. 575-601
	Shifrin, et al., "Phytoplankton Lipids: Environmental Influences on Production and Possible Commercial Applications," in <i>Algal Biomass</i> , Shelef, et al., eds., Elsevier, pp. 627-645 (1980).
	Shifrin, 1984, "Oils From Microalgae," in <i>Biotechnology for the Oils and Fats Industry</i> , Ratledge, et al., eds., American Oil Chemists Society, Champaign, IL, pp. 145-162
KD	Yongmanitchai, et al., "Omega-3 Fatty Acids: Alternative Sources of Production," <i>Process Biochem.</i> , 24:117-125 (1989) (1989)
	Volkman, et al., 1989, "Fatty Acid and Lipid Composition of 10 Species of Microalgae Used in Mariculture," <i>J. Exp. Mar. Biol. Ecol.</i> , 128:219-240
	Ben-Amotz, 1985, "Chemical Profile of Selected Species of Microalgae With Emphasis on Lipids," <i>J. Phycol.</i> , 21:72-81
KD	Pohl, et al., 1979, "Fatty Acids and Lipids of Marine Algae and the Control of Their Biosynthesis by Environmental Factors," <i>Marine Algae in Pharmaceutical Science</i> , pp. 473-523
KD	Beach, et al., 1973, "Environmental Influences on the Docosahexaenoate Content of the Triacylglycerols and Phosphatidylcholine of a Heterotrophic, Marine Dinoflagellate, <i>Cryptocodinium cohnii</i> ," <i>Biochim. Biophys. Acta</i> , 316:56-65

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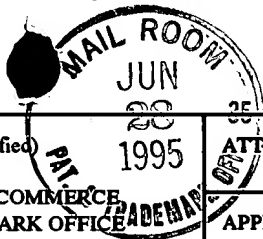
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127	Harrington, et al., "The Polyunsaturated Fatty Acids of Marine Dinoflagellates," <i>J. Protozool.</i> , 17:213-219, 1970
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✓	Harzer, et al., 1983, "Changing Patterns of Human Milk Lipids in the Course of the Lactation and During the Day," <i>Am. J. Clin. Nutr.</i> , 37:612-621
127	Kame, et al., 1984, "Use of Fish Oil Fatty Acids (EPA and DHA) in Nutrition-Supplementing Foods and in Drugs," <i>Chem. Abst.</i> , 100:66638d
	Liu, et al., 1987, "Increase in Plasma Phospholipid Docosahexaenoic and Eicosapentaenoic Acids as a Reflection of Their Intake and Mode of Administration," <i>Pediatr. Res.</i> , 22:292-296
127	Innis, et al. "Plasma and Red Blood Cell Fatty Acids of Low-Birth-Weight Infants Fed Their Mother's Expressed Breast Milk or Preterm-Infant Formula," <i>Am. J. of Clin. Nutr.</i> , 1990, 51:994-1000
	El Boustani, et al., 1987, "Enterol Absorption in Man of Eicosapentaenoic Acid in Different Chemical Forms," <i>Lipids</i> , 22:711-714

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KJ	2,611,706	09/52	Bernhart, et al.	99	118	
	2,923,628	02/60	Otto	99	63	
	3,458,625	07/69	Ensor, et al.	424	95	
	3,542,560	11/70	Tomarelli, et al.	99	63	
	3,649,295	03/72	Bernhart, et al.	99	57	
	4,058,594	11/77	Williams	424	37	
	4,216,236	08/80	Mueller, et al.	426	72	
	4,282,265	08/81	Theuer	426	607	
	4,303,692	12/81	Gaull	426	580	
	4,513,008	04/85	Recivi, et al.	514	560	
KJ	4,544,559	10/85	Gil, et al.	426	72	
KJ	4,614,663	09/86	Rule	426	601	

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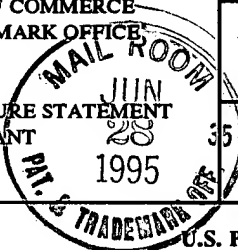
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	60/160 840	12/83	Japan			
	64/080 250	3/89	Japan			
	WO 90/13656	11/90	International Application			
	0 404 058	12/90	Europe			

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KJ	Sanders, et al., 1978, "Studies of Vegans: The Fatty Acid Composition of Plasma Choline Phosphoglycerides, Erythrocytes, Adipose Tissue, and Breast Milk, and some Indicators of Susceptibility to Ischemic Heart Disease in Vegans and Omnivore Controls," <i>Am. J. Clin. Nutri.</i> , 31:805-813
KJ	Carlson, 1987, "Effect of Fish Oil Supplementation on the n-3 Fatty Acid Content of Red Blood Cell Membranes in Preterm Infants," <i>Pediatr. Res.</i> , 21:507-510
KJ	Puppione, et al., 1988, "Marine Mammals" Animal Models for Studying the Digestion and Transport of Dietary Fats Enriched in ω -3 Fatty Acids. Positional Analyses of Milk Fat Triacylglycerol Molecules," in <i>Dietary ω-3 and ω-6 Fatty Acids</i> , Galli, et al., eds., Plenum Press

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KJ	4,752,618	06/88	Mascioli, et al.	514	549	
I	4,780,456	10/88	Pistolesi, et al.	514	78	
I	4,820,731	04/89	Mascioli, et al.	514	549	
I	4,843,095	06/89	Rubin	514	558	
I	4,874,603	10/89	Fratzer	424	10	
I	4,876,107	10/89	King, et al.	426	601	
↓	5,234,702	08/93	Katz, et al.	426	72	3/92
KJ	5,338,673	08/94	Thepenier, et al.	435	134	1/93

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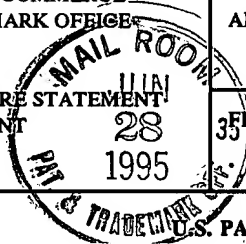
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	Borowitzka, M.A., 1988, "Fats, Oils and Hydrocarbons," in <i>Micro-Algal Biotechnology</i>, Chap. 10, pp 257-287; Borowitzka, et al., eds., Cambridge Univ. Press
KJ	Weaver, et al., 1989, "The Effect of Positional Placement of EPA in Ingested Triglyceride on EPA Accumulation in Human Platelet and Plasma Phospholipids," in <i>Health Effects of Fish And Fish Oils</i> , Clandra, ed., St. John's, Newfoundland
KJ	Ackman, R.G., 1989, "Problems in Fish Oils and Concentrates," in <i>Fats For The Future</i> , Chap. 13, pp. 189-200, Cambie, ed.
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	Behrens, et al., 1989, "Eicosapentaenoic Acid From Microalgae," in <i>Novel Microbial Products for Medicine and Agriculture</i>, Chapter 28, pp. 253-259, Demain, et al., eds., Soc. for Industrial Microbiology
KJ	Yeh, et al., 1990, "Enrichment of (n-3) Fatty Acids of Suckling Rats by Maternal Dietary Menhaden Oil," <i>J. Nutr.</i> , 120
KJ	Carlson, et al., 1990, "Growth and Development of Very Low-Birthweight Infants in Relation to n-3 and n-6 Essential Fatty Acid Status," <i>Inform</i> , 1:192-196 (Essential Fatty Acids and Eicosanoids - Invited Papers from the Third International Congress, American Oil Chemists' Society, Champaign Ill.

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128	Bourre, et al., 1990, "Desaturase in Brain and Liver During Development and Aging," <i>Lipids</i> , 25:354-356
	Simopoulos, 1990, in <i>Omega-3 Fatty Acids in Health And Disease</i>, Lees, et al., eds., p. 136
129	Kyle, 1991, <i>Adv. Applied Biotech.</i> , 12
K2	Carlson, et al., 1992, <i>Essential Fatty Acids And Eicosenoids</i> , Sinclair, et al., eds., American Oil Chem. Society, Champaign, Illinois

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